

RESULTS OF AN EXPLORATION OF ABORIGINAL ROCK-SHELTERS AT PORT HACKING.

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That Port Hacking must have once been a favourite camping ground of the aborigines is proved by the number of "rock-shelters," or, as they are locally styled, "gunyahs," along its shores. And this is not surprising when one considers the advantages it offers, especially on the southern side. Abundant fresh water, splendid beaches upon which to draw the nets, great stretches of shoal water in which to use the fishing spear, shell-fish in endless numbers everywhere, native fruits plentiful, that favourite source of vegetable food, the cabbage tree palm, by no means scarce, and finally, wallabies, bandicoots and opossums even now to be met with on neighbouring ridges, seem combined to form a veritable aboriginal paradise.

Local tradition points to Tyreal Head and says that there was the great crossing-place of all the South Coast blacks on their visits to the north. Near at hand is a great cave, the roof of which fell in, "smothering a whole tribe." Further up the bay is a cave from which many tons of "dry-bankers" (shells used for making lime) have been removed, exposing dozens of complete skeletons in the process. And so on. Unhappily I was not fortunate enough to light upon such a treasure heap, and of the six shelters visited I need describe only three, because the others contained simply the usual beds of shells, separated here and there by ancient fire-places—bones, whether human or otherwise, being markedly absent.

Of the three I purpose to describe, two contained hand impressions and the third human remains. The former are situated on the eastern bank of Cabbage Tree Creek, which empties itself into the bay a few hundred yards to the west of "Tyreal House" (Mr. W. Simpson). It would be useless for me to dwell upon the structure of these shelters, since similar places have already been frequently described;* it suffices to say that the floors apparently consisted of layers of shells divided by patches of greyish fireash, and at the bottom black soil. I say apparently, because the floors having been previously disturbed I did not attempt to explore them. An examination of the material thrown out showed only shells and ashes.

Concerning the hand impressions, too, I can say little beyond indicating the site of the shelters containing them, for no satisfactory explanation of their meaning has so far been given. To call them "wizards' hands" upon no reliable evidence does not solve the mystery.

Of the two methods practised by our aborigines of applying this symbol (for symbol I believe it originally was), viz., (1) the imposition of a hand previously covered with pigment, and (2) outlining an outspread hand on the rock surface by squirting the pigment between the fingers, the former only is represented in these shelters.

The pigments used are red and black, the great majority of the markings being red. All are left hands, and, I should think, all made by adult males with one exception afterwards to be noted. Many are very indistinct, the red having faded until nearly merged into the colour of the sandstone roof and the outlines of the black being obscured by the smoke-stains of the fires once built below them.

* See, for instance, "Notes on Rock-Shelters at Dee-Why Lagoon," by R. Etheridge, *Junr. Records of Aust. Museum.* Vol. i. p. 171.

The shelter marked A on the map faces the west and is situated just beyond the southern end of "The Basin," immediately



FIG. 1.

behind a large red gum which there hangs low over the creek. It is approached on one side by a rather steep incline down which shell fragments have rolled, and on the other side the ground dips abruptly into the bed of a narrow and deep channel, along which the rain-waters drained from the ridges behind must at times rush with great force.

On the roof of this shelter, which is about 20 feet long, 9 feet 6 inches high and 11 feet 6 inches wide (greatest measurements) are six faded but on near inspection easily decipherable impressions of hands, and traces of several other paintings, the nature of which it was impossible for me to determine.

The shelter marked B is situated about a quarter of a mile further up the creek, near where the fresh water comes in. It faces the west and is much higher and longer than Shelter A, measurements (greatest) being: length 36 feet, height 20 feet and width 15 feet. It may easily be recognised by the clump of tall cabbage-tree palms growing in front.

The hands here number over thirty, irregularly disposed and of different degrees of distinctness, but all confined to one portion of the wall towards the northern end. Doubtless this was intentional, but why one portion was chosen rather than another is, by our present knowledge, inexplicable. All are faded, but I suppose we are justified in considering the faintest impressions as the most ancient and not the result of carelessness or faulty pigment. Yet even if this view is adopted, we cannot trace a long series of single impressions made at regular or irregular intervals of time, for I daresay that at the most only two or three gradations, depending on their present condition, could be formed from the whole of them, and these divisions would not depend upon their relative position.

None are placed so high as to be beyond the reach of a man of average stature; none so low as to necessitate stooping in the act of imposition; and none point directly downwards.

In addition to these single hands, a strange combination appears on the back wall about 18 inches from the floor, taking the form of two hands, one that of a very young child and the other that of a much older child, the palms of which are joined by a narrow semicircular band or loop of pigment. Where the impression ends and the painting begins I could not discover, as the figure is very faint and blurred by the smoke from a fire just below it.*

The third cave, marked C on the map, overlooks a small cove known as Little Jibbon or Gonyah Beach, lying between Bundeena and Jibbon Beaches. The Government wharf at the eastern extremity of Bundeena is almost within a stone's throw of this beautifully situated gonyah. At the top of a steep incline rising directly from the beach and protected on every side from the winds—for large trees shelter its opening to the north—it must have formed an ideal aboriginal dwelling. The roof is

* For further information on the subject of the "red hands," see "Idiographic Drawings by the Aborigines at Weeny Creek," by R. Etheridge, Junr. Records Geol. Survey N.S.W. Vol. iii. p. 33.

very low (except at the extreme edge it is impossible to stand upright) and it is not so large as the second gunyah (B) on Cabbage Tree Creek, but the contents prove it to have been once a permanent camp—as far as any aboriginal dwelling can be considered permanent—and not, like the others examined, shelters used only whilst shell-fish were plentiful near at hand.

Not that shells are scarce in this Little Jibbon gunyah, for, on the contrary, a list of the shells heaped up here would, I think, be a list of all the edible shell-fish of Port Hacking. Shells which are extremely scarce in, or altogether absent from, the other gunyahs are here in abundance.

The floor of this shelter is further differentiated from the others in that it contains an immense number of bones of fish, birds, and small marsupials scattered amongst the shells. All the larger of these bones exhibit plainly the markings of teeth, and some also show cuts evidently made with some sharp instrument such as a stone knife, perhaps by the women in an effort to obtain a little meat from the usually well-picked bones thrown them by their partners. This floor, as the preceding two, had been disturbed.* That this first exploration was not thorough

* *Note.*—And I wish here to protest against the unsystematic way in which some explorers excavate these deposits. It is quite easy to open at one end of the shelter and work onwards, throwing the material back on the ground previously examined—or if the deposit be very large and the time at the disposal of the explorer short, then a face may be opened at the outermost edge in the most likely spot and a cutting reaching to the floor made right through to the back wall, the material removed being thrown well outside, so that two faces are left clear for future operations. Human remains are not to be expected in the lowest layer, but implements such as stone hatches, knives, &c., may be met with even on the rock floor. Neither of these methods was adopted by the first explorers of the shelter I now refer to, but holes a foot or two in diameter have been sunk here and there and shallow trenches run along the floor, the material rejected being heaped above the portions not examined. In addition to greatly increasing the work of the more thorough explorer, such a method as this has other serious disadvantages. For instance, it is always desirable to carefully uncover the whole skeleton and study the nature of the interment

will be seen, but it was sufficient to prevent me from obtaining a perfect knowledge of the floor structure and system of sepulture.

However, I should say that in the front part the top layer consisted of shells and greyish ash; next, shells, loose black soil and ashes; and last, hard black soil and shell fragments. At certain points below the top layer old fire-places occur, represented by large beds of almost pure ash, great handfuls of which may be lifted out. It was beneath one of these beds and above the hard black soil that I discovered the first human bones, probably those of a well-grown male. The skeleton was far from complete. One reason for this of course is that many of the missing bones had decomposed, but judging from those recovered, there are other bones which, I think, must have been removed as I have previously suggested. For instance, the malar bones, superior maxillary bones and teeth are perfect, but no trace was found of the remainder of the skull. The bones of the pelvis are missing, as also are one humerus, one radius, one clavicle, nearly all the vertebrae, the scapulas, and greater part of the ribs, together with nearly all the small bones of the hands and feet. In fact the bones recovered were principally the large bones of the limbs, and several of these even were broken.

Under such circumstances it was impossible for me to determine satisfactorily in what position the body had been interred, but as all the remains were found within a radius of about two feet, I believe the lower limbs must have been drawn up and the corpse buried in a bundle with the head to the east.

before removing any of the bones, but where the ground has been disturbed the bones also are scattered. So in the case of the adult skeleton discovered by me right alongside a trench such as I have just described, important bones are missing which were probably thrown out in digging the trench without a well-directed effort being made to recover the remainder of the skeleton. The orientation of the body is likewise difficult to decide, and, where the old layers are disturbed by trenching and new layers formed by heaping up the rejected material over these beds, it is sometimes impossible to satisfactorily measure the depth of the interment.

The teeth present in the upper jaw are sound but very much worn. The right median and lateral incisors are missing and the alveolar process absorbed, no doubt the result of the custom of knocking out teeth at the initiation ceremony. Usually only one tooth is removed, and in almost every skull I have examined the one chosen is the right median incisor. Sometimes two are struck out, viz., the right and left median incisors. As far as my experience goes, the removal of two on the same side is unusual.

Near this skeleton and against the back wall of the shelter I discovered the remains of two children about 2 feet below the surface in damp black soil sparsely mixed with fish bones and shells. A little further along but towards the centre, I unearthed some remains of a third child from a depth of 12 inches, just above a layer of hard black soil; and less than a foot away I recovered the almost complete skeleton of a fourth child under a layer of hard greyish ash covered by a thin layer of shells and loose ash, the total depth of the interment being at the most only 4 inches. This child, and as well as I could judge, all the other children, were placed full length in the grave, faces downward. None of the four skeletons were perfect, and in two instances (2nd and 3rd) a mere handful of bones, principally larger bones of the limbs, was found. In one case only (the first and by far the eldest) was the entire skull recovered. The nearest approach to a complete skeleton was the fourth; and this, I think, was owing to the protection afforded by the cement-like layer of ash above it. All the bones of this child are scorched and discoloured by fire, which seems to prove one of two things—either for some superstitious reason a fire was lighted over the body, or that the shelter was subsequently used as a dwelling.

The latter theory is contrary to our well-founded impression that the aborigines carefully avoided burial places unless compelled to hurriedly revisit them for purposes of a new interment. The first explanation seems the more probable, and, allowing for the fact that bones buried a foot or more below the surface would not show very evident traces of the fires built above, it would certainly apply to three of the skeletons—the adult and 3rd and

4th children, over which well-defined patches of ash were found, but in a much lesser degree to the 1st and 2nd children buried against the back wall below a comparatively deep layer (2 feet) of loose black soil almost free from ash.

In addition to the five incomplete skeletons now mentioned, I am informed several others, all of children, were recovered from this shelter by its first explorers.

The present state of the bones, depending as it does to a great extent on the age of the child at death, the situation in the shelter chosen for the grave, and the depth of the interment, cannot well assist one in determining the intervals which elapsed between the burials, but I feel sure that the adult was buried long before any of the children.

The great number of the latter interred here is possibly the result of an epidemic fatal to its youngest members, visiting the tribe then inhabiting the district. The question whether this shelter was a well recognised and long established burial place, or only availed of on two occasions, viz., upon the death of the adult and later during the epidemic amongst the children, might have been decided if the floor had been thoroughly and orderly examined in the first instance.

Scattered amongst the remains at the back of the gunyah I discovered five stones used for breaking bones to extract the marrow or for opening shells, and six small shells* in the backs of which square holes had been cut. The "nappers" have not been worked in any way, and, if found under ordinary circumstances, would attract no special attention—yet it is evident they have been used for the purpose suggested. The shells, I believe, formed part of a necklet or some similar ornament.

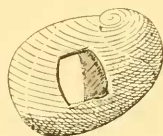


FIG. 2.

Between the remains of the first and second children, and leaning against the wall at a depth of about 15 inches, I discovered the curious bone ornament or implement now to be described.

* "*Nerita melanotragus*." The cutting implement was probably an oyster shell or sharp flake. See accompanying drawing by Mr. Chas. Hedley.

It is made from the fibula of a kangaroo, is $9\frac{3}{4}$ inches in length, well polished, and somewhat triangular in section, the base being furrowed by a rather deep groove, and the ridge rounded. The epiphysis of one end has been broken off and that end ground to a gradually tapering, flat, blunt point. The signs of wear upon it are few and for the most part confined to the lower half of the back or convex portion of the bone. The point has been slightly fractured, and just below the centre on the back the bone has for about an inch been a little abraded in a horizontal direction. Between this abrasion and the tip are a number of tiny shallow cuts or scratches. However, these markings are so insignificant that it would be useless to base any theory as to the use of the bone upon them. The accompanying drawing, for which I am indebted to Mr. Charles Hedley, will convey an exact idea of its general appearance.



FIG. 3.

Three uses have been suggested for it, viz., netting needle, "death bone" or "pointer," and "nose bone." With reference to the first suggestion, I can find no record of the use of bone netting needles by the aborigines, but if it be allowed that sometimes bone was substituted for the usual wooden stick, the natives would, I think, certainly avoid a polished and pointed implement from which the cord would be so likely to slip—a contingency which even in the case of sticks they were forced to provide against. Roth says* :—"The wooden needle, over a foot long, with a small lump of cementing substance at either end, has no 'eye' in it, the twine being just wound on and off as required."

The second suggestion is more feasible, for although this bone bears but little resemblance to the elaborate

* W. E. Roth. "Ethnological Studies, &c." p. 94. See also Brough Smyth, "Aborigines of Victoria." Vol. i. p. 389.

"Munguni" so well described by Roth,* it is nevertheless somewhat similar to the "Ngadhungi" of Taplin † or the "Irna" and "Ingilla" of Spencer and Gillen.‡ Probably at one time the "pointing of the bone" was a common form of sorcery in eastern N.S. Wales, but it is needless to build upon this probability, for a much simpler and surer explanation lies near at hand. The piercing of the nasal septum and the insertion in the hole thus formed of twigs, feathers, bones, pieces of wood, &c., is practised over all Australia. Sometimes it is part of, or at least a compulsory introduction to, the initiatory rites of males and females, but generally both sexes undergo the operation voluntarily and cheerfully in the belief that their personal appearance is improved thereby. Occasionally a superstitious dread prompts the use of the nose ornament.§

The bone unearthed by me I believe to have been put to this use, although in having only one end pointed it differs from the usual nose ornament, which is pointed or rounded at both ends. I cannot find an exactly similar nose bone described for the Eastern Colonies, but I may without hesitation claim this to be one on the authority of Spencer and Gillen, who in writing of the Central Australian natives, say,|| "Nose bones, called 'Lakira,' are frequently worn, every native having his or her nasal septum pierced. The most common form is a bone, sometimes the fibula of a kangaroo, pointed at one end, and measuring as much as 40 cm. in length."

* *Loc. cit.* pp. 152-158.

† "The Narrinyeri." Rev. Geo. Taplin in "Native Tribes of S. Australia," p. 24.

‡ "Native Tribes of Central Australia," p. 534.

§ Mitchell. "Exped. into Australia." Vol. ii. p. 339; and Brough Smyth, *loc. cit.* Vol. i. p. 274.

|| *Loc. cit.* p. 574.

In dealing with a race so little advanced as the Australians, it is necessary to remember that each of their few implements, utensils, or ornaments, may have been at times put to several different uses. The wommera, for instance, is used not only for propelling spears, but sometimes as a fire stick, a music stick, with a piece of quartz fastened to one end as a knife or chisel, and even as a digging stick. So this bone may have once been useful as well as ornamental.*

* *Vide* A. W. Howitt in Brough Smyth, *loc. cit.* Vol. ii. p. 302.